

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-22. (Canceled)

23. (Currently Amended) The working system according to ~~claim 22,~~claim 42, wherein the substrate stop position controller includes a memory for storing location-related information which relates to a location to which the movable member is moved at least in the direction parallel to the conveying direction for detecting the predetermined detection portion with the first and second detectors.

24. (Previously Presented) The working system according to claim 23, wherein the memory includes a portion for storing, as the location-related information, at least one piece of information about at least one of dimensions and a shape of the circuit substrate.

25. (Previously Presented) The working system according to claim 23, wherein the memory includes a portion for storing, as the location-related information, at least one piece of information about a direction in which the circuit substrate is conveyed by the substrate conveyor.

26. (Previously Presented) The working system according to claim 23, wherein the memory includes a portion for storing, as the location-related information, at least one piece of information for stopping the circuit substrate at the center of the range of movement of the working head moved by the moving apparatus in the conveying direction for the operations to the circuit substrate.

27. (Previously Presented) The working system according to claim 23, wherein the memory includes a portion for storing kinds and stop positions of a plurality of kinds of circuit substrates conveyed by the substrate conveyor, such that the stop positions are associated with respectively corresponding kinds of the circuit substrates.

28. (Currently Amended) The working system according to ~~claim 22,~~claim 42, further including a component supplying device, wherein the working head includes a component mounting head for mounting electronic circuit components supplied from the component supplying device at prescribed points on the circuit substrate which has been stopped at the stop position.

29. (Previously Presented) The working system according to claim 28, wherein the component supplying device has a plurality of component feeders, each of which has a component supply portion, contains a multiplicity of electronic circuit components of one kind, and is adapted to sequentially feed the electronic circuit components one by one to the component supply portion, the plurality of component feeders being arranged in a row extending in a direction parallel to the conveying direction of the substrate conveyor.

30. (Currently Amended) The working system according to ~~claim 22,~~claim 42, wherein the substrate conveyor is a belt conveyor including at least one pair of pulleys, a belt entrained around the at least one pair of pulleys, and a drive assembly which rotates at least one of the at least one pair of pulleys.

31. (Currently Amended) The working system according to ~~claim 22,~~claim 42, wherein the moving apparatus has: a first movable member which is movable in one of a first direction and a second direction which intersect with each other in a plane parallel to a surface of the circuit substrate which has been conveyed by the substrate conveyor and then stopped; and a second movable member which is held by the first movable member such that the second movable member is movable in the other of the first direction and the second direction and which acts as the movable member holding the working head, the moving apparatus moving the second movable member to a predetermined location in the plane, and the first detector and the second detector being held by one of the first movable member and

the second movable member which is movable at least in the direction parallel to the conveying direction.

32. (Previously Presented) The working system according to claim 31, wherein the first movable member is movable in the direction parallel to the conveying direction of the substrate conveyor, while the second movable member is movable in a direction perpendicular to the conveying direction.

33. (Previously Presented) The working system according to claim 31, wherein the first movable member is movable in a direction perpendicular to the conveying direction, while the second movable member is movable in the direction parallel to the conveying direction.

34. (Currently Amended) The working system according to ~~claim 22,~~claim 42, wherein each of the first detector and the second detector detects an edge of the circuit substrate on the downstream side in the conveying direction, as the predetermined detection portion.

35. (Previously Presented) The working system according to claim 39, wherein said each of the first detector and the second detector has a photoelectric sensor including a light emitting element and a light receiving element.

36. (Previously Presented) The working system according to claim 35, wherein the photoelectric sensor is of reflection type including the light emitting element and the light receiving element and being configured such that a light radiated from the light emitting element and then reflected by the predetermined detection portion of the circuit substrate is received by the light receiving element, to detect the predetermined detection portion.

37. (Previously Presented) The working system according to claim 24, wherein the memory includes a portion for storing, as the location-related information, at least one piece of information for stopping the circuit substrate at the center of the range of movement

of the working head moved by the moving apparatus in the conveying direction for the operations to the circuit substrate.

38. (Previously Presented) The working system according to claim 25, wherein the memory includes a portion for storing, as the location-related information, at least one piece of information for stopping the circuit substrate at the center of the range of movement of the working head moved by the moving apparatus in the conveying direction for the operations to the circuit substrate.

39. (Previously Presented) A working system for a circuit substrate, comprising:
a substrate conveyor which conveys the circuit substrate in a conveying direction along a straight line, and is capable of stopping the circuit substrate at a desired position in the conveying direction;

a moving apparatus having a movable member which is movable in at least a direction parallel to the conveying direction of the substrate conveyor, wherein the moving apparatus is capable of moving the movable member to a desired location in the conveying direction;

a working head which is held by the movable member and performs a plurality of operations for prescribed points on the circuit substrate which has been stopped at the desired position;

a first detector used for decelerating the circuit substrate and a second detector used for stopping the circuit substrate, which are held by the movable member with a space therebetween in said direction parallel to the conveying direction and each of which detects a detection portion of the circuit substrate which is predetermined as an object to be detected, without contacting the detection portion; and

a substrate stop position controller which controls the moving apparatus to have the first and second detectors move to respective predetermined locations, and controls

the substrate conveyor such that the substrate conveyor decelerates in response to the detection of the detection portion by the first detector positioned at one of the predetermined locations and stops in response to the detection of the detection portion by the second detector positioned at the other of predetermined locations,

wherein each of the first detector and the second detector outputs, when said each detector does not detect the predetermined detection portion of the circuit substrate, one of an OFF signal and an ON signal, and outputs, when said each detector detects the predetermined detection portion, an other of the OFF signal and the ON signal.

40. (Previously Presented) The working system according to claim 39, wherein the working head performs the operations for the prescribed points on an upper surface of the circuit substrate, and wherein the first detector and the second detector are held by the movable member such that the first and second detectors are opposed to the upper surface of the circuit substrate at different positions in the conveying direction.

41. (Previously Presented) The working system according to claim 40, wherein the first detector and the second detector are held by the movable member such that said each of the first detector and the second detector detects, as the predetermined detection portion of the circuit substrate, a same point on the upper surface of the circuit substrate in a direction which is perpendicular to the conveying direction and is parallel to the upper surface of the circuit substrate.

42. (Previously Presented) A working system for a circuit substrate, comprising:
a substrate conveyor which conveys the circuit substrate in a conveying direction along a straight line, and is capable of stopping the circuit substrate at a desired position in the conveying direction;

a moving apparatus having a movable member which is movable in at least a direction parallel to the conveying direction of the substrate conveyor, wherein the moving

apparatus is capable of moving the movable member to a desired location in the conveying direction;

a working head which is held by the movable member and performs a plurality of operations for prescribed points on the circuit substrate which has been stopped at the desired position;

a first detector used for decelerating the circuit substrate and a second detector used for stopping the circuit substrate, which are held by the movable member with a space therebetween in said direction parallel to the conveying direction and each of which detects a detection portion of the circuit substrate which is predetermined as an object to be detected without contacting the detection portion; and

a substrate stop position controller which controls the moving apparatus to have the first and second detectors move to respective predetermined locations, and controls the substrate conveyor such that the substrate conveyor decelerates in response to the detection of the detection portion by the first detector positioned at one of the predetermined locations and stops in response to the detection of the detection portion by the second detector positioned at the other of predetermined locations,

wherein the substrate conveyor conveys a first circuit substrate as the circuit substrate in one of opposite directions each as the conveying direction, and conveys a second circuit substrate in an other of the opposite directions, and is capable of stopping the first circuit substrate at a desired first position in said one direction, and stopping the second circuit substrate at a desired second position in said other direction, and wherein at each of (a) a first time when the substrate conveyor conveys the first circuit substrate in said one direction and (b) a second time when the substrate conveyor conveys the second circuit substrate in said other direction, the first detector is located on an upstream side of the second detector in a corresponding one of said one direction and said other direction.

43. (Previously Presented) The working system according to claim 42, wherein the working system comprises two substrate detectors which are held by the movable member with said space therebetween in said direction parallel to the conveying direction and each of which detects the predetermined detection portion of the circuit substrate, without contacting the predetermined detection portion, and wherein at (a) said first time one of the two substrate detectors is located on an upstream side of an other of the two substrate detectors in said one direction, so that said one substrate detector provides the first detector and said other substrate detector provides the second detector and, at (b) said second time said other substrate detector is located on an upstream side of said one substrate detector in said other direction, so that said other substrate detector provides the first detector and said one substrate detector provides the second detector.

44. (New) The working system according to claim 39, wherein the substrate stop position controller includes a memory for storing location-related information which relates to a location to which the movable member is moved at least in the direction parallel to the conveying direction for detecting the predetermined detection portion with the first and second detectors.

45. (New) The working system according to claim 44, wherein the memory includes a portion for storing, as the location-related information, at least one piece of information about at least one of dimensions and a shape of the circuit substrate.

46. (New) The working system according to claim 44, wherein the memory includes a portion for storing, as the location-related information, at least one piece of information about a direction in which the circuit substrate is conveyed by the substrate conveyor.

47. (New) The working system according to claim 44, wherein the memory includes a portion for storing, as the location-related information, at least one piece of

information for stopping the circuit substrate at the center of the range of movement of the working head moved by the moving apparatus in the conveying direction for the operations to the circuit substrate.

48. (New) The working system according to claim 44, wherein the memory includes a portion for storing kinds and stop positions of a plurality of kinds of circuit substrates conveyed by the substrate conveyor, such that the stop positions are associated with respectively corresponding kinds of the circuit substrates.